

Notice of Allowability

Application No.

10/723,503

Examiner

Brian T. O'Connor

Applicant(s)

LE MAUT ET AL.

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's amendment filed on 12/07/2007.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Joscelyn Cockburn (Reg. Nbr 27,069) on February 14, 2008.

The application has been amended as follows:

Claims 1-18 have been replaced with the claim text shown in the 5-page attached appendix A.

Note: The Examiner's amendment is made for claims 15 and 16 so that the recited steps encoded in instructions are connected to a computer that executes the steps.

The specification has been amended with the text shown in the 1-page attached appendix B.

Note: The Examiner's amendment is made to provide a written description for the computer readable medium in claims 15 and 16.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. O'Connor whose telephone number is 571-270-1081. The examiner can normally be reached on 9:00AM-6:30PM, M-F, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Application/Control Number:
10/723,503
Art Unit: 2619

Page 3

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BTO

Brian T. O'Connor
February 15, 2008
Patent Examiner


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Appl. No.: 10/723,503
FR920020046US1

APPENDIX A

AMENDMENT TO CLAIMS

1. (Original) A system comprising:

means for comparing the number of data packets (WPC) temporarily stored within a buffer to a predefined threshold value (WPCth);

means (410) for storing the packet sequence number (PSNr) of a last received in-sequence data packet, and each highest packet sequence number (HPSNj) respectively received through a plurality of switching planes; and

means (275) coupled to the comparing means and to the storing means for determining at least one switching plane among a plurality of switching planes on which to unstop a flow of data packets by comparing the last-received in-sequence packet sequence number (PSNr) to each highest packet sequence number (HPSNj) when the number of data packets (WPC) exceeds the predefined threshold value (WPCth).
2. (Original) The system of claim 1 further comprising at least one ingress adapter (200) coupled to the plurality of switching planes, the at least one ingress adapter comprising means (210) to sequentially number the data packets within each flow and means to identify each data packet within each flow by an ingress adapter identifier (Sn) and by a priority level identifier (Pn).
3. (Original) The system of claims 1 or 2 wherein the determining means further comprises means for pointing to the storing means using the ingress adapter identifier (Sn) and the priority level identifier (Pn) of each data packet flow.

1 of 5

~~Page 4/9~~

Appl. No.: 10/723,503
FR920020046US1

APPENDIX A

4. (Original) The system of claim 2 wherein the at least one ingress adapter further comprises means (205) for load balancing the data packets within each flow among the plurality of switching planes.

5. (Original) The system of claim 1 further comprising at least one egress adapter having an egress buffer in which packets are temporarily stored.

6. (Original) The system of claim 5 wherein the at least one egress adapter further comprises means (270) for resequencing the data packets temporarily stored within the egress buffer for each flow of data packets.

7. (Original) The system of claim 6 wherein the at least one egress adapter further comprises means (280) for outputting the resequenced data packets from the egress buffer.

8. (Original) The system of claims 1 or 2 wherein the comparing means further comprises means for counting the number of data packets (WPC) temporarily stored within the egress buffer for each flow of data packets.

9. (Original) The system of claim 8 wherein the counting means further comprises means for decrementing the number of data packets (WPC) temporarily stored within the egress buffer when a resequenced data packet is output from the egress buffer.

2 of 5

~~Page 4 of 5~~

Appl. No.: 10/723,503
FR920020046US1

APPENDIX A

10. (Original) The system of claims 1 or 2 wherein the data packets are numbered with an increasing sequence of data packets numbers.

11. (Original) A method comprising:

- a) receiving packets through a plurality of switching planes;
- b) identifying a packet sequence number for a last received in-sequence packet;
- c) identifying highest packet sequence number for packets received through each of the plurality of switching planes; and
- d) determining at least one of the plurality of switching planes to unstop based upon the packet sequence number for the last received in-sequence packet number and the highest sequence number for at least one of the plurality of switching planes.

12. (Original) The method of claim 11 further including

- c) comparing number of packets temporarily stored in a buffer with a predefined threshold value.

13. (Original) The method of claim 12 wherein the at least one of the plurality of switching planes is determined only if the number of packets stored in the buffer is equal or greater than a predefined threshold value.

3 of 5

~~Page 6/9~~

Appl. No.: 10/723,503
FR920020046US1

APPENDIX A

14. (Original) The method of claim 13 wherein c) includes comparing the last received in-sequence packet number with the highest sequence number for each of the plurality of switching planes.

15. (Currently Amended) A program product comprising:

a computer readable medium on which a computer program is embedded, said computer program including a first module of instructions ~~that~~ when executed cause a computer to examine packets in a flow and recording a packet sequence number for a last received in-sequence packet;

a second module of instructions ~~that~~ when executed cause said computer to examine packets received through a plurality of switching planes and record highest sequence number for packets received through each of the plurality of switching planes; and

a third module of instructions when executed cause said computer to using use the packet sequence number for last received in-sequence packet number and the highest sequence number for each of the plurality of switching planes to identify at least one plane to unstop.

16. (Currently Amended) The program product of claim 15 further including fourth module of instructions when executed cause said computer to determine number of packets in a buffer associated with said flow; and to compare said determined number with a threshold value.

40F5

~~40F5~~

Appl. No.: 10/723,503
FR920020046US1

APPENDIX A

17. (Original) The system of claim 1 wherein the at least one switching plane so determined include means to release an in-sequence data packet whose packet sequence number is next to the packet sequence number of said last received in-sequence data packet.

18. (Original) The method of Claim 11 further including releasing from the at least one of the plurality of switching planes so determined, at least one packet whose sequence number is next to the last received in-sequence packet number.

50F5

~~Page 8/9~~

Appl. No.: 10/723,503
FR920020046US1

APPENDIX B

AMENDMENT TO SPECIFICATION

Page 18, please insert this paragraph before the first paragraph:

In the context of the invention computer readable medium means an object, such as a disc, memories, tape, DVP, or similar devices, carrying information that is read by a computer. Such objects are well known in computer technology and further description is not warranted.

1 OF 1

~~Page 2 of 8~~